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RED SPIDER



a, Red spiders (actual size) on under side of leaf; b, adult and young (40 times actual size); c, leaf rusted from red spider feeding.

(See other side for life history and control)

Picture Sheet No. 20

Bureau of Entomology and Plant Quarantine, Agricultural Research Administration
United States Department of Agriculture

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RED SPIDER

(*Tetranychus bimaculatus* Harvey)

Life History and Injury

Red spiders are so small that they can hardly be seen without a magnifying glass. In addition to the two-spotted spider mite at least three other species are now known to attack cotton. They may be greenish or yellowish in color, but the females are usually reddish and the smaller males reddish yellow. Red spiders multiply rapidly. There may be as many as 17 generations a year. Hot, dry weather is most favorable for rapid multiplication, and a heavy rain often checks an outbreak. Red spiders are found throughout the Cotton Belt. They feed from June to September on almost 200 kinds of plants, including many garden and field crops, ornamentals, and weeds. In the South they pass the winter on leaves that remain green, such as wild blackberry, Jerusalem-oak, wild vetch, and violet. They move to cotton early in the summer, and when cotton is no longer suitable for food they return to weeds or other plants. They crawl on the ground and are carried by wind or by rain-water.

Red spiders live on the under side of the leaves, where they lay their eggs and spin delicate webs. They suck the sap from the leaves, causing the under surfaces to become thickly dotted with whitish feeding punctures. Spider mite injury, often called rust, is first indicated when blood-red spots appear on the upper surface of the leaves. The entire leaf then reddens or turns rusty brown, curls, and drops from the plant. The loss of leaves causes shedding of small bolls and may prevent the lint from developing properly in large bolls. Damage is most serious in the Southeast.

Control

The spread of red spiders to cotton may be prevented by destroying weeds around the fields and by controlling the pest on dooryard plants. An infestation can often be stamped out by pulling out and destroying the first few cotton plants that become infested. Dusting cotton with finely ground sulfur at the rate of 10 to 25 pounds per acre is the most practical direct-control measure. A second application a week later is necessary to kill the spider mites that hatch after the first application. Care should be taken to cover the under side of the leaves thoroughly with the dust.

In areas where red spider mites are a pest dust mixtures of organic insecticides used against cotton insects should contain at least 40 percent of sulfur to prevent red spider increase.

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